

CLAIMS

I Claim:

1. An hour meter having a display that provides a visual indication of a total time an engine has operated and a visual indication of engine operation time remaining in a predetermined service time interval, comprising:

a) a plurality of segments on said display that are selectively displayed in a first optical state or a second optical state; and

b) a display drive that displays said plurality of segments in said first optical state at a beginning of a predetermined service interval, said drive changes the optical state of a first segment from the first optical state to the second optical state when a given portion of the predetermined service time interval has elapsed, said drive incrementally changes the state of a remainder of the plurality of segments from said first optical state to said second optical state as additional portions of the predetermined service time interval elapse to visually display the amount of engine operation time remaining in the predetermined service time interval.

2. The hour meter of claim 1 wherein said first segment remains in said second optical state while said remainder of the predetermined service time interval elapses.

3. The hour meter of claim 1 wherein said drive resets the plurality of segments to the first optical state when a predetermined engine operation time after the predetermined service time interval elapses.

4. The hour meter of claim 1 wherein all of said plurality of segments are displayed in said second optical state when said predetermined service time interval elapses.

5. The hour meter of claim 4 wherein all of said segments remain in said second optical state for a predetermined engine operation time after the service time interval elapses to provide a visual indication that service is due.

6. The hour meter of claim 5 wherein said drive resets the plurality of segments to the first optical state when the predetermined engine operation time after the service time interval elapses.

5 7. The hour meter of claim 1 further wherein said display indicates an amount of engine operation time remaining with the plurality of segments for a next service time interval after the service time interval has elapsed.

10 8. The hour meter of claim 1 further comprising a switch for manually resetting said predetermined service time interval and said plurality of segments to said first optical state.

15 9. The hour meter of claim 1 further comprising a switch for manual resetting of the plurality of segments to the first optical state, said drive automatically resets the plurality of segments to the first optical state if said switch is not actuated and a predetermined engine operation time elapses after the predetermined service time interval elapses.

10. An hour meter having a display that provides a visual indication of a total time an engine has operated and a visual indication of engine operation time remaining in a predetermined service time interval, comprising:

20 a) a graph on said display having a plurality of segments that are selectively displayed in a first optical state or a second optical state;

25 b) a display drive that displays said plurality of segments in said first optical state at a beginning of a predetermined service interval, said drive incrementally changes the state of each of the segments of the graph from said first optical state to said second optical state as the predetermined service time interval elapses to visually display the amount of engine operation time remaining in the predetermined service time interval; and

30 c) a switch for manual resetting the predetermined service interval and the plurality of segments to the first optical state, said drive automatically resets the plurality of segments to the first optical state if said switch is not actuated and a predetermined engine operation time elapses after a predetermined service time interval elapses.

11. In an hour meter having a display that provides a visual indication of a total time an engine has operated, a method of visually displaying an amount of engine operation time remaining in a predetermined service time interval, comprising:

a) selectively displaying a plurality of segments on said display in a first optical state or a second optical state;

b) displaying said plurality of segments in said first optical state at a beginning of a predetermined service interval;

c) changing the optical state of a first segment from the first optical state to the second optical state when a given portion of the predetermined service time interval has elapsed; and

d) incrementally changing the state of a remainder of the plurality of segments of the graph from said first optical state to said second optical state as additional portions of the predetermined service time interval elapse to visually display the amount of engine operation time remaining in the predetermined service time interval.

12. The method of claim 11 wherein said plurality of segments define a graph.

13. The method of claim 11 wherein said first segment remains in said second optical state while said remainder of the predetermined service time interval elapses.

14. The method of claim 11 further comprising resetting the plurality of segments to the first optical state when a predetermined engine operation time after the predetermined service time interval elapses.

15. The method of claim 11 wherein all of said plurality of segments are displayed in said second optical state when said predetermined service time interval elapses.

16. The method of claim 14 wherein all of said segments remain in said second optical state for a predetermined engine operation time after the service time interval elapses to provide a visual indication that service is due.

17. The method of claim 15 further comprising resetting the plurality of segments to the first optical state when the predetermined engine operation time after the service time interval elapses.

5 18. The method of claim 11 further comprising visually displaying an amount of engine operation time remaining with the plurality of segments for a next service time interval after the service time interval has elapsed.

10 19. The method of claim 11 further comprising providing for manual and automatic resetting of the plurality of segments to the first optical state.

20. The method of claim 19 wherein the manual resetting is performed by pressing a reset button on the hour meter.

15 21. The method of claim 19 wherein the automatic resetting is occurs when a predetermined engine operation time after the predetermined service time interval elapses.

20 22. The method of claim 11 further comprising manually resetting said predetermined service time and said plurality of segments to said first optical state.

23. In an hour meter having a display that provides a visual indication of a total time an engine has operated, a method of providing a visual indication of engine operation time remaining in a predetermined service time interval, comprising:

25 a) providing a graph on said display having a plurality of segments that are selectively displayed in a first optical state or a second optical state;

 b) displaying said plurality of segments in said first optical state at a beginning of a predetermined service interval;

30 c) incrementally changing the state of each of the segments of the graph from said first optical state to said second optical state as the predetermined service time interval elapses to visually display the amount of engine operation time remaining in the predetermined service

time interval;

d) resetting the predetermined service time interval and the plurality of segments to the first optical state when a manual reset switch is actuated; and

5 e) automatically resetting the predetermined service time interval and the plurality of segments to the first optical state if said switch is not actuated during the predetermined service time interval and a predetermined engine operation time elapses after the predetermined service time interval elapses.